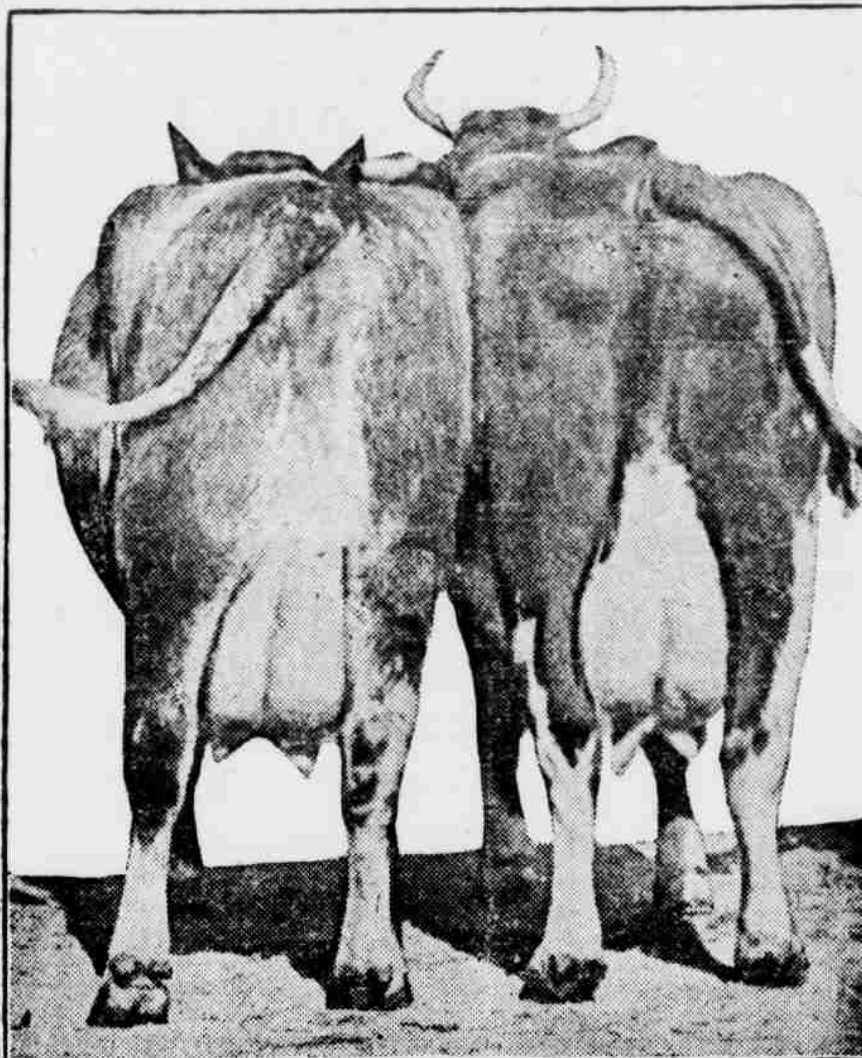


COW BEST SUITED FOR AVERAGE FARMER



FINE TYPE OF MILK AND BEEF COMBINED.

(By FRANK D. TOMSON.)

It is generally recognized that the type of cow best suited for the average farmer, who does not specialize in any line, is the cow that will yield a considerable volume of milk and that will take on flesh readily when not in milk. The illustration accompanying this article shows two Shorthorn cows that are fine examples of this combined beef and milk type. The size and fullness of the udder is the evidence of their milk production and anyone experienced in the handling of beef cattle will readily recognize the beef characteristics of these two cows—and that they have ample scale. The produce from such cows as these grow quickly into value as beef or breeding animals, and the heifers may be relied upon to perform creditably in the dairy.

The problem of disposing of the male calves, which is encountered by dairymen everywhere who rely upon dairy cows of the so-called dairy breeds, does not enter into the calculations of the farmer or dairyman who places his dependence on cows of the type shown herewith. The male calves from such cows as these are snapped up by neighboring farmers or butchers and they are willing to pay a premium for them.

Through the use of high-grade cows of this type, and there are many thousands of such, in which Shorthorn blood predominates, the farmer is assured of profits. If there is an occasional cow that does not yield a profitable flow of milk, she readily converts the feed she consumes into beef and is working toward the profit mark through one channel or the other all of the time. The great majority of farmers are not inclined nor equipped to be specialists. Their aggregate income is made up from returns from diversified activities on the farm. This being true, the dependable type of cow is what has been widely heralded as the dual-purpose cow, of which the illustration is a fine example.

A striking example of this type is the Shorthorn cow, Oxford Maid, owned in Iowa, with a weight of 1,850 pounds and a milk yield for thirty days of 1,526 2-3 pounds and over 5,000

pounds in four months. If the farmers will more generally adopt for their use cows of this combined utility, they will find a surer and easier road to prosperity.

LOSS OF FAT IN SKIM MILK

Chief Cause Probably Is Speed of Bowl—When Turned Too Slow Milk Does Not Skim Clean.

(Clemson College Bulletin.)

Every farmer who uses a separator to skim his milk should give close attention to see that he does not lose fat in the skim milk. A small percentage of fat going into the skim milk continuously means a great loss for the year. If a cow gives 5,000 pounds of milk and four-tenths of 1 per cent is lost, it would mean for the year a loss of about \$8 per cow.

There may be many causes to produce such a loss. Probably the chief cause is the speed of the bowl. If a separator is turned too slowly, the milk does not skim clean and fat goes over into the skim milk. Another cause might be the temperature of the milk. For close skimming milk should be 85 degrees or above. Still another cause is an unbalanced bowl. See that the separator gets plenty of oil when running and do not neglect it when it gets out of order.

HOGS INFESTED WITH WORMS

Dose of Calomel and Santonin Is Recommended—Remedies Should Be Given in Thin Slop.

Hogs badly infested with worms should be given four grains of calomel and six grains of santonin for each 100-pound hog; or two and one-half grains santonin, one dram areca nut, two grains calomel and two drams sodium bicarbonate for each 100-pound hog. These remedies should be fed in a thin slop. The slop should be made out of ship-stuff or bran. The hogs should be fasted for at least 24 hours, then given the slop containing the proper amount of medicine. If necessary repeat in ten days or two weeks.

FLUSHING SOWS IS FAVORED

Oats and Finely Cut Alfalfa Will Put Them in Good, Vigorous Condition for Breeding.

About a month before breeding time brood sows that have been living on pasture since their pigs were weaned may be started on a little grain. Oats and finely cut alfalfa fed twice a day in amounts which the sows will readily clean up will put them in good condition for breeding. Larger and more vigorous litters will be obtained if the sow is in a vigorous condition when bred. She should be gaining in flesh at the time, not fat, but just starting to get fat.

BLOSSOM ROT OF TOMATOES

Can Be Almost Entirely Controlled by Keeping Soil Moist While Plants Are Growing.

Blossom-end rot of tomatoes cannot be controlled by spraying, but it can be almost entirely controlled by keep-

ing the soil moist all the time the plants are growing. Irrigation is the ideal way of keeping the soil moist, but this method is not practicable in some cases. The next best method is by mulching. This may be done by covering the ground with straw, leaves, hay, etc.

Pig Pen Wisdom.

Select a thoroughbred sire, if you have to drive miles to get him. It will make all the difference in the feeding and growing capacity of the pigs.

Feed for Mutton.

Mutton sheep seldom make mutton unless given something to make it with.

Use More Horse Power.

Accomplish more work in a day by using more horsepower and better implements.

Turkeys Subject to Disease.

Turkeys are subject to the same diseases as other fowls when placed under same conditions.

GOOD EARTH ROADS

Much Depends on Soil, Construction and Maintenance.

LEADING QUALITIES OF SOILS

From Standpoint of Road Building They Depend on Texture and Structure, Permeability and Capillary Power.

(Prepared by the United States Department of Agriculture.)

Roads constructed by grading the natural soil to the required shape, grade and alignment, without special surfacing of any kind, usually are designated as earth, or dirt, roads. The efficiency of such roads depends (1) on the quality of the soil composing the roadbed, (2) on proper construction, and (3) on adequate maintenance.

Soils.

The principal qualities of soils from the standpoint of road construction depend upon texture and structure, permeability and capillary power. Soils usually are classified as clay, sand, loam, gravel, marl or gumbo, according to the material predominating in their composition. Soils composed of two different materials mixed in such proportions that the character of the mixture is decidedly intermediate may be designated conveniently by naming both components, as sand-clay, sand-gumbo, gravelly clay, etc.

Clay.

Clay is a soil of very fine texture which results from the complete decomposition of rocks or minerals. Pure clay is very retentive of moisture, and usually becomes plastic and unstable when wet, but when mixed with other materials, such as sand or gravel, its stability may be increased greatly. In general, a clay road, to be passable, must be kept dry, and since clay is very difficult to drain, it happens seldom that roads composed entirely of clay can be kept in good condition at all seasons of the year. No matter how well such a road may be graded and crowned, the surface absorbs water in wet seasons and subsequent traffic will produce mud. But when the road is shaped and drained properly it will dry out quickly when the weather becomes favorable and may soon be restored to its original shape. On the other hand, clay roads, when very dry, usually produce considerable dust under traffic, and for this reason may become very insanitary in extended dry seasons.

The extent to which clay roads are subject to the objections mentioned above usually varies according to the so-called "slaking" qualities of the clay. Some varieties of clay, when compressed into a ball and placed in water, will continue in the original shape for a considerable time, even if thoroughly saturated and softened, while compressed balls from other varieties will slake or break down almost immediately upon being placed in water. Clays of the first-mentioned variety are called "non-slaking clays," and of the latter, "slaking clays." It has been observed that slaking clays produce more mud in wet weather and more dust in dry weather than those of the non-slaking variety. This characteristic of clays is further considered in the discussion of sand-clay roads appearing in another part of this bulletin, where methods for testing clay are suggested.

Most clays, as they occur in nature, contain more or less sand or gravel, which, as pointed out above, usually has a stabilizing effect by making the clay more easily drained and increasing its bearing power when wet.

Sand.

Sand is composed of granular particles of mineral or stone which occur in nature and which will pass a one-fourth-inch-mesh screen. The one-fourth-inch-mesh screen is fixed arbi-

trarily as the dividing line between sand and gravel and is generally, though not universally, accepted as such. Nearly all sand consists essentially of quartz grains that are very hard and durable. But there is no coherence between the different grains, and therefore soils composed principally of sand are unstable, except when confined in some way. If properly confined and protected from undermining, sand foundations may, under favorable climatic conditions, prove entirely satisfactory for almost any type of road crust, but it is practically impossible, under any circumstances to make a satisfactory road surface of sand alone.

Sand roads are at their best when they are kept moist, and for this reason they should be designed with a view to retaining moisture in the sand rather than to effective drainage, as is the case with clay roads. Such roads sometimes are improved temporarily by mixing sawdust, straw, pine leaves or other similar material into the surface, but, in general, the sand-clay crust is the most satisfactory improvement for roads of this character.

Loam.

Loam is a soil composed of clay and sand, mixed with a considerable percentage of finely divided vegetable matter or humus. The quality of loam from the standpoint of road building depends very largely upon the proportions in which sand and clay are present and on the character of these materials. Loam that contains about 60 per cent of moderately coarse sand and from 20 to 30 per cent of good cementing clay usually will make an excellent road surface for light traffic. Material of this kind is drained easily and is fairly stable, even when wet. Another advantage is that it will not become very dusty under traffic in dry weather and frequently will cement together into a very hard, compact surface. Roads surfaced with such material are commonly called "topsoil" roads, because the topsoil of cultivated fields possesses the desired characteristics more frequently than that to be obtained from any other source.

Gravel.

Gravel is made up of small rounded particles of stone, which occur in nature and are sufficiently large to be retained on a one-fourth-inch-mesh screen. Gravelly soils are distributed widely in the United States, and vary widely in quality. In general, when a soil contains as much as 40 to 50 per cent of gravel and sufficient clay or other cementing material to bond the gravel particles together, it proves a very satisfactory material for construction of roads, because it is drained easily and is very stable when compacted.

Marl.

Marl is clay containing a relatively large percentage of carbonate of lime. It grades into calcareous clay and argillaceous limestone, and its value for road building is variable. In general this material has few advantages over the best varieties of ordinary clay for use in constructing a road, unless the percentage of lime carbonate is sufficiently high to give it, when compacted, approximately the character of limestone. The best varieties of marl become very hard and compact when placed in a road surface, and in some localities this material is used extensively for road surfacing.

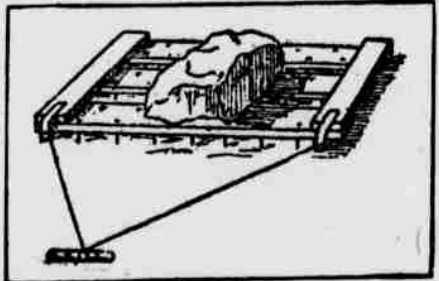
Gumbo.

Gumbo is essentially loam containing a high percentage each of clay and decayed vegetable matter and a very low percentage of sand. Gumbo has a strong tendency to absorb and hold water, and therefore is hard to drain. It is harder to handle in a road surface than clay, because the vegetable matter is an added weakness, but if protected from surface water by a proper system of drainage, it may be used to construct a fair subgrade for supporting some type of impervious road crust. Gumbo has a relatively high capillary power, and for this reason its occurrence in a roadbed usually will necessitate the use of subdrainage, even under conditions favorable for surface drainage.

HANDY HARROW FOR GARDENS

Implement Devised to Keep Out Weeds Without Much Hard Work—Perfect Mulch Is Made.

Last summer I had the pleasure of seeing one of the neatest and cleanest home gardens I ever saw. All vegetables were planted in straight rows,



Homemade Hand Harrow.

an exact distance apart. Not a weed was in sight. I was at a loss to know how a garden could be kept so until one day I saw the owner pulling a small homemade hand harrow up and

down the rows. It was only a few boards nailed together, with spikes for teeth, says a writer in Farm Progress. Being less than two feet wide, it went nicely between the rows, and when weighted down made a perfect mulch and destroyer of all weeds.

How much easier it would be to let the children pull a harrow like this up and down your garden rows once a week, than to spend a half day hoeing. After the soil is once put in first-rate condition, a wheel hoe or garden harrow will keep it free from weeds without much hard weeding.

IMPORTANCE OF COLLAR FIT

As Horses' Necks Differ in Shape It Is Wrong to Make Them Wear Misfitted Collars.

Horses' necks differ in shape and it is wrong to make them wear a collar that was fitted to another horse. You would have galled feet if you wore other than your own shoes. Much worse for the horse that pulls a load with a misfit collar.

ABSORBINE
TRADE MARK REG. U. S. PAT. OFF.
Reduces Bursal Enlargements, Thickened, Swollen Tissues, Curbs, Filled Tendons, Soreness from Bruises or Strains; stops Spavin Lameness, allays pain. Does not blister, remove the hair or lay up the horse. \$2.00 a bottle at druggists or delivered. Book 1 M free.
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HAROLD SOMMER, 180 DE KALE AVE., BROOKLYN, N. Y.

OLD FALSE TEETH WANTED
We pay \$2 to \$15 per set for old false teeth. Doesn't matter if broken. Send by parcel post and receive check by return mail. Bank reference. Mass's Teeth Specialty, 307 S. Fifth St., Philadelphia, Pa.

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Watson E. Coleman, Washington, D. C. Books free. High-class references. Best results.

Every Woman Wants
Partine
ANTISEPTIC POWDER
FOR PERSONAL HYGIENE
Dissolved in water for douches stops pelvic catarrh, ulceration and inflammation. Recommended by Lydia E. Pinkham Med. Co. for ten years. A healing wonder for nasal catarrh, sore throat and sore eyes. Economical. Has extraordinary cleaning and germicidal power. Sample Free. \$6. all druggists, or postpaid for \$1.00. mail. The Paxton Toilet Company, Boston, Mass.

W. N. U., CINCINNATI, NO. 31-1917.

Preliminaries.

"I want, dear, to give a blow-out."
"Then first, my own, we must raise the wind."

Splendid Medicine
For Kidneys, Liver
and Bladder

For the past twenty years I have been acquainted with your preparation, Swamp-Root, and all those who have had occasion to use such a medicine praise the merits of Dr. Kilmer's Swamp-Root; specially has it been very useful in cases of catarrh or inflammation of the bladder. I firmly believe that it is a very valuable medicine and recommendable for what it is intended.

Very truly yours,
DR. J. A. COPPEDGE,
Oct. 26, 1916. Alabreed, Texas.

Prove What Swamp-Root Will Do For You

Send ten cents to Dr. Kilmer & Co., Binghamton, N. Y., for a sample size bottle. It will convince anyone. You will also receive a booklet of valuable information, telling about the kidneys and bladder. When writing, be sure and mention this paper. Regular fifty-cent and one-dollar size bottles for sale at all drug stores.—Adv.

World's Sugar Production.

The New York Journal of Commerce is responsible for the following figures in regard to sugar production: The world's production of sugar in 1918 amounted to 37,193,000,000 pounds. The production in the United States, not including external possessions, was 2,026,000,000 pounds; imports from Hawaii amounted to 1,137,000,000 pounds, from the Philippines to 217,000,000 pounds, from Porto Rico to 850,000,000 pounds. From foreign sources 5,416,000,000 pounds were received. The consumption in the United States in 1916 was 7,960,000,000 pounds, or 73.13 pounds per capita. The United States exported 1,686,000,000 pounds.

What He Saw.

An excited man at Evansville called the sheriff's office and asked in an anxious tone of voice whether William Habbe, the sheriff, knew that "three or four boys were playing on the roof of the courthouse."

The sheriff didn't but he promised to make an investigation at once. When Sheriff Habbe had climbed the long flight of stairs to the cupola and looked out he saw—

Four tinnies engaged in laying a new cornice around the eaves of the building.—Indianapolis News.

Spain last year imported 16,386 tons of coffee, compared with 15,974 tons in 1915 and 13,873 in 1914.

POST TOASTIES
are the newest and best in corn flakes

